A.D. 1841 . . . . . N° 8904.

SPECIFICATION

OF

GEORGE EVANS.

TRUSSES.

LONDON:
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A.D. 1841 . . . . . N° 8904.

Trusses.

EVANS' SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, GEORGE EVANS, of Dorset Place, Mary-le-Bone, in the County of Middlesex, Surgeon, send greeting.

WHEREAS Her present most Excellent Majesty Queen Victoria, by Her Letters Patent under the Great Seal of Great Britain, bearing date at Westminster, the Twenty-ninth day of March, in the fourth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said George Evans, Her especial licence, full power, sole privilege and authority, that I, the said George Evans, my exors, admors, and assigns, or such others as I, the said George Evans, my exors, admors, or assigns, should at any time agree with and no others, from time to time and at all times during the term of years therein expressed, should and lawfully might make, use, exercise, and vend, within England, Wales, and the Town of Berwick-upon-Tweed, my Invention of "AN IMPROVEMENT OR IMPROVEMENTS UPON TRUSSES, FOR THE RELIEF OF HERNIA;" in which said Letters Patent is contained a proviso that I, the said George Evans, shall cause a particular description of the nature of my said Invention, and in what manner the same is to be performed, to be inrolled in Her said Majesty's High Court of Chancery within six calendar months next and immediately after the date of the said in part recited Letters Patent, as in and by the same, reference being thereunto had, will more fully and at large appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said George Evans, do hereby declare that my said Invention relates to trusses applicable to the various species of hernia, or protrusions of the viscera, to which the human body is liable, particularly to that class of trusses which are kept in their places by bandages, without having cumbrous and inconvenient steel springs encircling the body, and it relates also to the stuffing of the pads of trusses generally. And the improvements consist,—

Firstly, in producing a pleasant and beneficial degree of elasticity of the pad or cushion of any description of truss, by stuffing it with that very elastic vegetable substance known by the name of moc-main, the product of the Bombax Heptaphyllum, or Silk Cotton Tree.

Secondly, in the combination of a moc-main pad, with a spring lever, or a hinged lever and spring, and with a triangular position of three studs or buttons near one end of the lever, and one button near the other end of the lever, whereby the pad is held by the strap or tongue of a bandage at a proper degree of obliquity on either the right or left groin, for the relief of inquinal hernia, the spring of the lever aiding the elasticity of the pad in yielding and following up of the pressure, in accordance with respiration and with the movements of the body.

Thirdly, in the combination of a moc-main pad with two spring levers or two hinged levers and springs, applicable to the relief of umbilical and femoral hernia, whereby great steadiness of the pad is insured, while it yields freely and follows up the pressure sufficiently in every respiration of the lungs and motion of the body.

Fourthly, in the combination of a spring lever or a hinged lever and a spring with a moc-main pad covered with caoutchouc, for the relief of that species of hernia or protrusion of a natural viscus called prolapsus ani.

And fifthly, in the combination of a pair of lever springs, with a spiral spring acting in a tube against a sliding stem in the construction of a truss for the relief of that species of hernia or falling down or protrusion called prolapsus uteri.

And the manner in which I carry these my improvements into effect is shewn in the Drawings hereunto annexed, as explained by the description herein contained, reference being had to the figures and letters marked on the Drawings in correspondence with the figures and letters prefixed to the various clauses of the description.

Description of the Drawings.

Figure 1 represents a front view, and Figure 2 a back view of part of a human figure wearing a truss on the groin, the upper part buttoned to a

bandage encircling the body, having a secondary bandage so attached to the hinder part of it as to sit exactly opposite to where the pad shall press, and thence passing between the thighs, and buttoned to the lower part of the truss. Figure 3, a perspective view of the truss and the bandages, as shewn separate from the body. Figure 4, a plan of the bandages as they appear when stretched out on a table. *a*, the pad, with the lever on the back. *b*, the encircling bandage, made of a web of leather, silk, cotton, or other suitable material. *c*, the secondary bandage. *d*, three button holes in a triangular position in one end of the encircling bandage, corresponding with and made to be fastened over three buttons fixed in the upper part of the lever of the pad, by which arrangement a proper obliquity of the pad is ensured. *e*, a tongue at the opposite end of the encircling bandage, having a row of button holes to afford an opportunity of fastening the bandage tighter or slacker upon the upper one only of the three buttons before mentioned. *f*, a row of button holes in the tongue of the secondary bandage to fasten it tighter or slacker upon the lower button of the lever, so that the pad may have a beneficial and a comfortable pressure on the hernial opening. Figure 5 a front view, and Figure 6 a side view of part of a human figure wearing a femeral truss. *g*, the pad with a pair of levers, having one button near the end of each lever. *h*, a bandage encircling the body, called the body belt, to support a secondary or thigh bandage. *k*, the secondary bandage passing around the thigh, and buttoned on to the levers of the truss, so as to confine the pad to the femeral space with a pressure regulated by different button holes in the tongue of the bandage. *l*, two straps for suspending the secondary bandage from the body belt. Figure 7 a front view of part of a human figure wearing an umbilical truss. *m*, the truss consisting of a pad and a pair of hinged levers, each lever having a button near the end. *n*, a bandage encircling the body, having a tongue at each end with button holes to fasten upon the buttons of the levers to hold the pad in its place with a regulated pressure. The above seven Figures are represented about one sixth of the average sizes of the respective articles. The Figures which follow are shewn about the average size of the articles as made for general use. Figure 8 a view of the back, and Figure 9 of the side of a spring lever truss, adapted for the relief of inquinal hernia. *p*, the back of the pad, formed of a plate of metal covered with leather or other convenient material. *q*, the spring lever, made of well hammered or rolled brass or other elastic metal, secured at one end to the pad plate by three screws or rivets, having heads which project and form buttons, on which the encircling bandage is to be fastened. A single button at the other end of the lever serves to hold the secondary bandage by any one of the holes of its tongue. *r*, the face of the pad formed of soft leather,

or silk, or caoutchouc, or any combination of caoutchouc and filamentous substances, wrought into such an elastic textile fabric as will allow the natural elasticity of the moc-main free play without producing a corrugated surface of the pad on being worn and compressed. *s*, *t*, *u*, three metal buttons fixed in a triangular position near the upper or fixed end of the lever, upon which the three button holes in the broad tongue of the encircling bandage are placed, so that the truss may take an oblique position in respect of the bandage, and lie in the proper place in the groin. *u*, the upper button, made longer in the shank than the other two, in order to make room for both tongues of the body belt. *v*, the button at the lower end of the lever, to which the tongue of the secondary bandage is to be fastened. Figure 10, a view of the back, and Figure 11 of the side, of an inquinal truss, in which a metal lever is hinged to the pad plate, having a spring attached to the lever and pressing on the pad plate, by the elasticity of which spring the motion of the lever is regulated. v^1, the lever hinged to the pad plate. *w*, the spring, which may be fixed near either end of the lever. *x*, the buttons. *y*, the pad. Figure 12 a back view, and Figure 13 an edge view of a truss for the relief of umbilical or of femoral hernia. *z*, the back of the truss. 1, a double-spring lever screwed on to the middle of the pad plate by three screws. 2, two buttons near the ends of the two levers. 3, the pad. Figure 14 a back view, and Figure 15 an edge view of a modification of the truss, applicable to umbilical or to femoral cases of hernia. 4, a pair of levers hinged together, and to the middle of the pad plate. 5, a spring rivetted to each lever and pressing on the pad plate. 6, a button near the end of each lever. 7, the pad. Figure 16 a back view, and Figure 17 an edge view of another modification of a truss applicable to umbilical or to femoral cases of hernia. 8, a pair of levers hinged to the ends of the pad plate, one arm passing through the other. 9, springs fastened to the levers, and pressing on the pad plate. 10, the buttons near the ends of the levers. 11, the pad. Figure 18 a side view, and Figure 19 a view of the bottom of a truss for the relief of prolapsus ani. 12, the pad covered with caoutchouc. 13, the pad plate. 14, the spring lever. 15, a button at each end of the lever on which are to be buttoned two straps descending from a body belt, and passing down before and behind the body, and converging to the buttons. Figure 20 a view, and Figure 21 a section, of a truss for the relief of prolapsus uteri. Figure 22 a view of the under side of the lever springs. 16, the head of the truss, having a depression or cup in the upper surface for the neck of the uterus to rest on, and two perforations through the sides of the cup, to allow the drainage of any moisture down outside the stem, whence it may pass away. 17, a tube constituting an upper stem, screwed into the head and

receiving a spiral spring and a lower stem to slide freely in the tube. 18, the spiral spring, acting in the tube against the end of the lower stem. 19, the lower stem sliding in the tube and resisted by the spiral spring. 20, a groove in the lower stem, in which a screw stud in the upper stem works, to ensure the straight sliding and retention of the lower stem in the upper. 21, a cross head at the bottom of the lower stem, to which the lever springs are affixed. 22, a pair of lever springs, made in one piece and screwed through the middle to the cross head, and kept from turning around by two steady pins. In cases where expence would be of no consequence, I should make the whole of this truss of gold, covered with a coat of caoutchouc; but where economy is needful, I prefer making the head of boxwood, or of pure tin, the stems of tin or of pewter, having a large proportion of tin in its composition; and I make the lever springs of tinned steel, or of brass gilt and well hammered, and the spiral spring of tinned steel, the whole being covered with an impervious coat of caoutchouc, so as to defend the instrument as much as practicable from the action of moisture.

And I further declare, that I lay no claim to the parts separately of these trusses, except as to the use of moc-main.

But what I claim is, the use of the moc-main or silk cotton as a stuffing for the pads of trusses generally.

And I claim the combination of a moc-main pad with a lever spring, or with a hinged lever and spring, and with three studs or buttons in a triangular position on the lever, as herein-before shewn and described, for the formation of a truss for the relief of inquinal hernia.

And I claim the combination of a moc-main pad with two spring levers, or two hinged levers and springs, in the formation of a truss for the relief of umbilical or of femoral hernia, as herein-before shewn and described.

And I claim the combination of a moc-main pad covered with caoutchouc, with a hinged lever and spring, or with a spring lever, in the construction of a truss for the relief of prolapsus ani, as herein-before shewn and described.

And I claim the combination of a pair of lever springs with a spiral spring acting in a tube against a sliding stem, in the construction of a truss for the relief of prolapsus uteri, as herein-before shewn and described.

In witness whereof, I, the said George Evans have hereunto set my hand and seal, this Twenty-eighth day of September, in the year of our Lord One thousand eight hundred and forty-one.

GEORGE (L.S.) EVANS.

Evans' Improvements in Trusses.

FARRER.

AND BE IT REMEMBERED, that on the Twenty-eighth day of September, in the year of our Lord 1841, the aforesaid George Evans came before our said Lady the Queen in Her Chancery, and acknowledged the Specification aforesaid, and all and every thing therein contained and specified, in form above written. And also the Specification aforesaid was stamped according to the tenor of the Statute made for that purpose.

Inrolled the Twenty-ninth day of September, in the year of our Lord One thousand eight hundred and forty-one.

LONDON:
Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1856.

MAR 29. Nº 8904.
SPECIFICATION

1 SHEET

FIG. 1

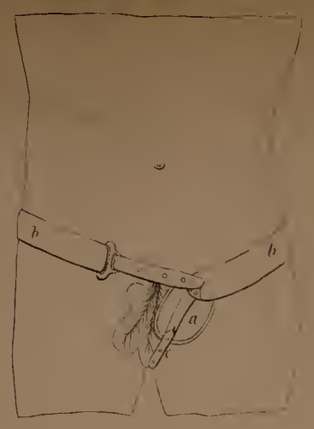


FIG 2

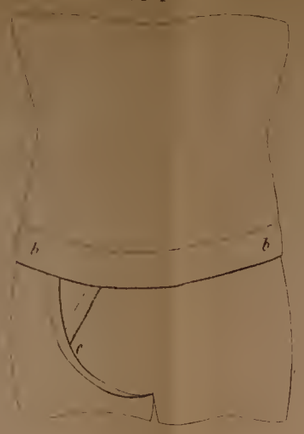


FIG 5

FIG 6

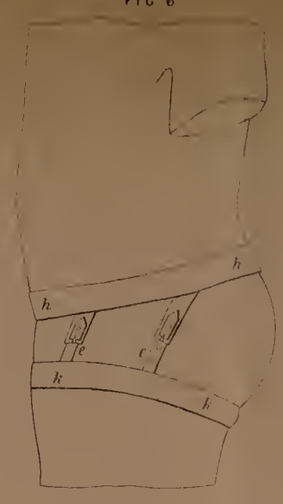
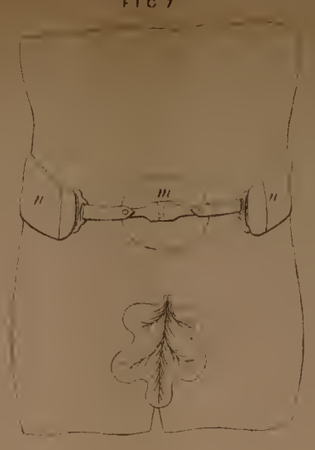


FIG 7



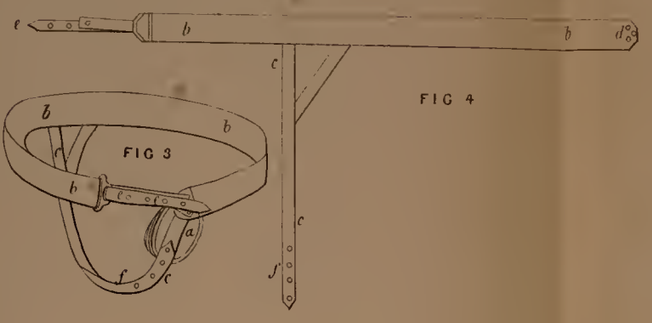


FIG 4

FIG 3

FIG 12

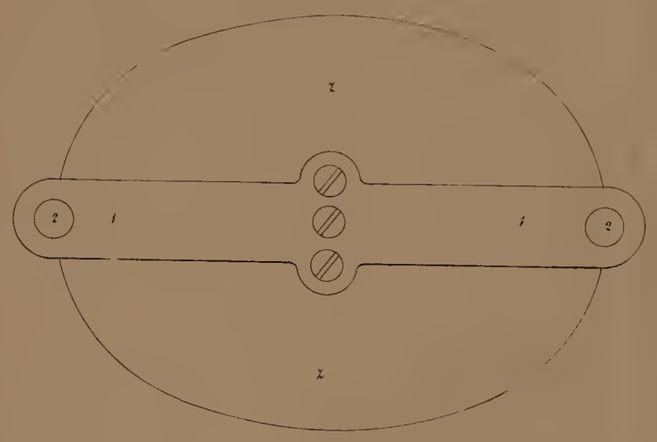


FIG. 14

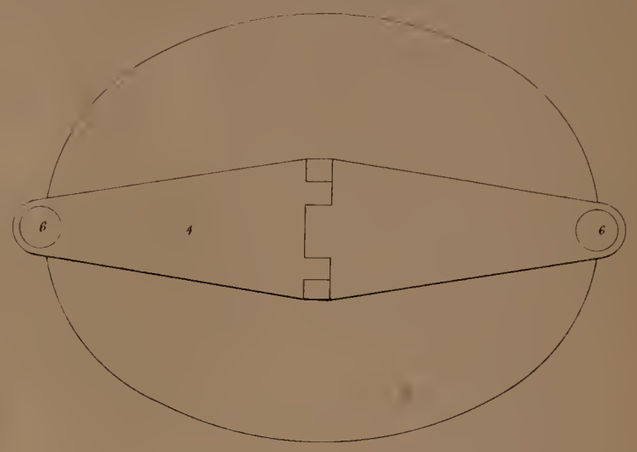


FIG. 8

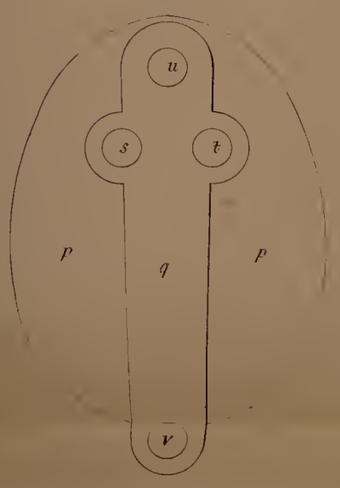


FIG 9

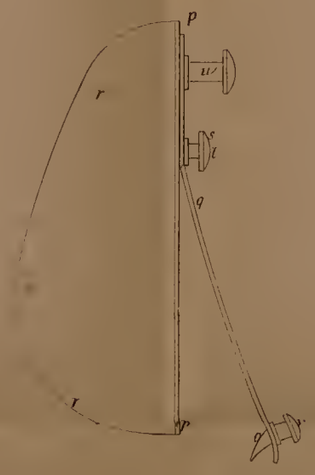


FIG. 13

FIG. 15

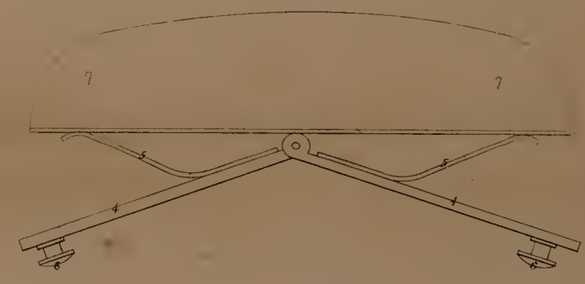


FIG. 10

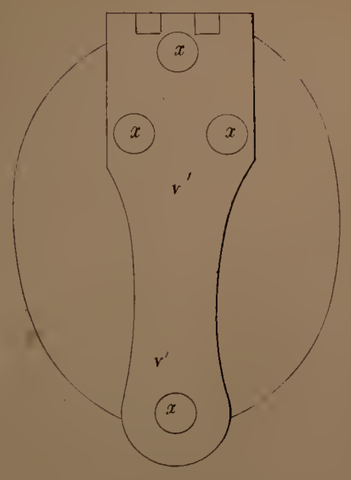


FIG. 11

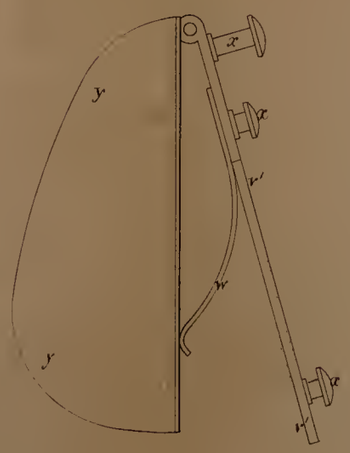


FIG. 18.

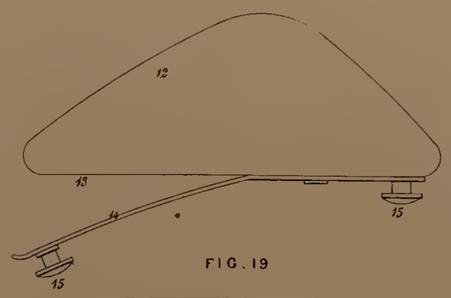


FIG. 19

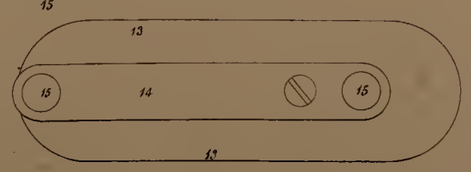


FIG 16

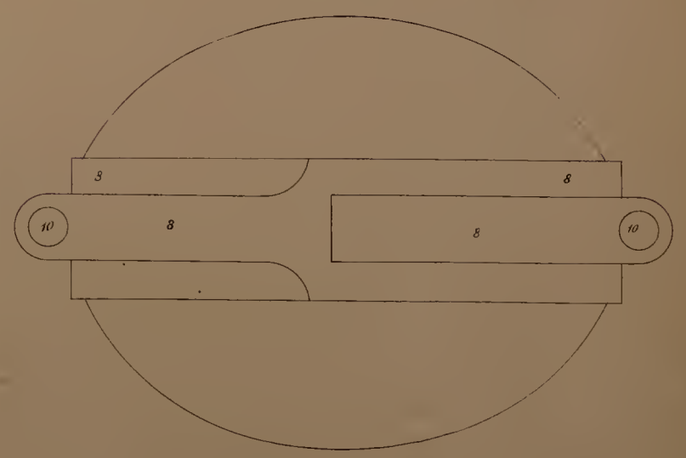


FIG. 20.

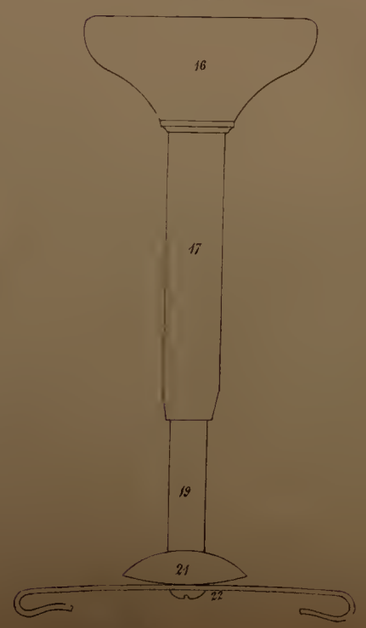


FIG. 21.

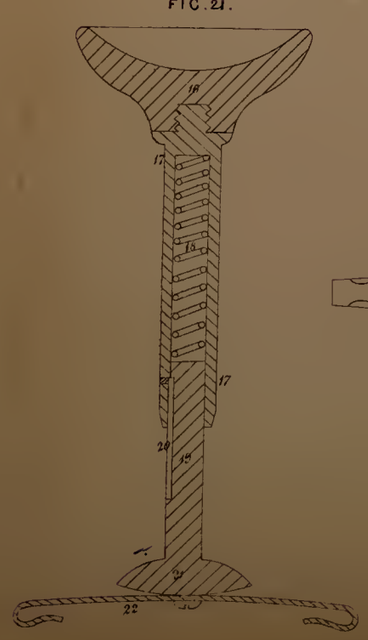


FIG 22

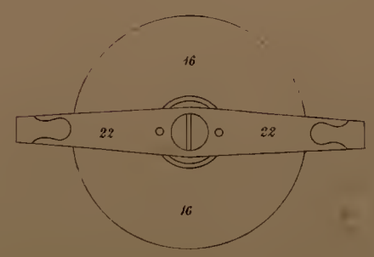
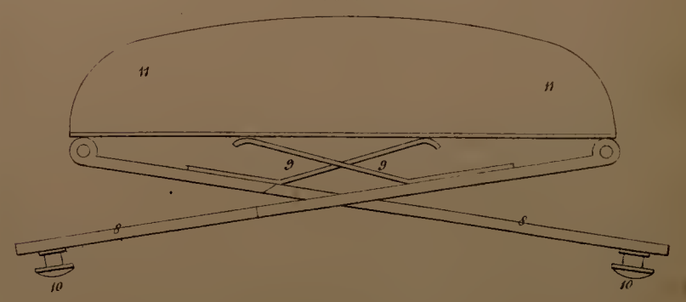


FIG. 17



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Printers to the Queen's most Excellent Majesty. 1856